

ABSTRACT

Disclosed is a cyclophilin protein with PPIase activity functioning as an antioxidant. When being overexpressed in transplanted cells, the cyclophilin protein remarkably reduces the cytotoxicity induced by cyclosporin A or its analogues so that it can greatly improve the success rate in transplantation. Also, disclosed is a composition useful to prevent transplant rejection, comprising a recombinant expression vector which can over-express a cyclophilin protein with PPIase activity. The recombinant expression vector is introduced into cells which are thus transformed to be resistant to cyclosporin A and its analogues. A method of preparing such cells is also disclosed.